

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) A system for treating skin, comprising:

(a) a surface radiation assembly configured to irradiate a region on the surface of the skin with electromagnetic radiation;

(b) a surface electrode assembly structurally separate from said surface radiation assembly and comprising at least a first pair of a first electrode and a second electrode, the first and second electrodes being configured to be applied to the surface of the skin and to apply a voltage to the skin surface;

(c) an electrical meter configured to measure an electrical response of the skin to a voltage applied across the electrodes; and

(d) a processor configured to adjust a value of a parameter of the electromagnetic radiation based upon a measured electrical response to a voltage applied across the first and second electrodes.

2.(original) The system according to claim 1, wherein the value of the parameter is adjusted in order to control skin temperature.

3-4. (canceled)

5.(original) The system according to claim 1, wherein the parameter is selected from the group comprising:

1. irradiation intensity;
2. irradiation pulse duration
3. irradiation pulse frequency.

6. (previously presented) The system of Claim 1 wherein the voltage applied to the skin is in the radio frequency.

7. (canceled)

8.(original) The system according to claim 1 wherein the electrical response of the skin is skin impedance or a skin conductivity.

9. (previously presented) The system according to Claim 8 wherein at least one of the intensity, pulse duration, and pulse frequency of the radiation is decreased by the processor when the skin impedance decreases below a predetermined value.

10. (previously presented) A system for treating skin,  
comprising:

(a) a source of radiation configured to irradiate a  
region of the skin;

(b) at least a first pair of a first electrode and  
a second electrode, the first and second electrodes being  
configured to apply a voltage to the skin;

(c) an electrical meter configured to measure an  
electrical response of the skin to a voltage applied across  
the electrodes, wherein the electrical response of the skin is  
skin impedance or skin conductivity; and

(d) a processor configured to adjust value of a  
parameter of the radiation based upon a measured electrical  
response to a voltage applied across the first and second  
electrodes,  
wherein the processor is further configured to store in a  
memory a table assigning value of one or more parameters of  
the irradiation to each of one or more non-overlapping  
impedance ranges, and the value of a parameter of the  
radiation is adjusted to a value assigned by the table to an  
impedance measurement.

11. (currently amended) A method for treating skin comprising:

- (a) irradiating a region of the skin with electromagnetic radiation from a surface radiation assembly;
- (b) applying a voltage to the skin from a surface electrode assembly spaced from the surface radiation assembly;
- (c) measuring an electrical response of the skin to the applied voltage; and
- (d) adjusting a value of a parameter of the electromagnetic radiation from the surface radiation assembly based upon the measured electrical response.

12. (canceled)

13. (previously presented) The method according to claim 11, wherein the value of the parameter is adjusted in order to control skin temperature.

14. (previously presented) The method according to Claim 11, wherein the radiation is electro-magnetic radiation.

15. (previously presented) The method according to Claim 11 wherein the source of radiation is a a voltage applied to the skin.

16. (previously presented)) The method according to claim 11, wherein the parameter is selected from the group comprising:

1. irradiation intensity;
2. irradiation pulse duration
3. irradiation pulse frequency.

17. (previously presented) The method of Claim 15 wherein the voltage applied to the skin is in the radio frequency range.

18. (canceled)

19. (previously presented) The method according to Claim 11 wherein the electrical response of the skin is a skin impedance.

20. (previously presented) The method according to Claim 19 wherein at least one of the intensity, pulse duration, and pulse frequency of the radiation is decreased by the processor when the skin impedance decreases below a predetermined value.

21. (original) The method according to claim 19 wherein the processor is further configured to store in a memory a table assigning value of one or more parameters of the irradiation to each of one or more non-overlapping impedance ranges, and the value of a parameter of the radiation is adjusted to a value assigned by the table to an impedance measurement.

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22. (original) The method according to claim 19 wherein the processor is further configured to store in a memory a threshold, and the value of a parameter of the radiation is adjusted to a predetermined value if the impedance is above a predetermined threshold, and is adjusted to 0 if the impedance is below the threshold.